



Safety Precautions

- Keep this installation manual together with the user's manual in a handy place so that you can find it whenever you need to see it after reading this manual thoroughly.
- Make sure you read this 'Safety Precautions' carefully before installing the product.
- Safety Precautions states information that is important to your safety matters. Please follow the instructions carefully.

⚠ WARNING • Hazards or unsafe practices that may result in severe personal injury or death.

⚠ CAUTION • Hazards or unsafe practices that may result in minor personal injury or property damage.

- ▶ You must install the product by qualified installer. If you install the product on your own or by unqualified person, Samsung is not responsible for any damages which may occur due to incorrect installation.
- ▶ Make sure to read the following safety precautions carefully before installation.
- ▶ Make sure to observe the cautions specified in this manual.
- ▶ Conduct a test run of the unit after installation and then explain all system functions to the owner.
- ▶ The indications and meanings are as shown below.

❖ Follow IEC (International Electrotechnical Commission) standards for the power input and ISO (International Standards Organization) standards for input current.



WARNING • Hazards or unsafe practices that may result in severe personal injury or death.

- ▶ Installation must be carried out by a qualified installer. Do not attempt to repair, move, modify or reinstall the unit on your own since such act may cause fire, electric shock or water leakage.
- ▶ Install the unit in a place where it is strong enough to hold the product weight. When installed in place where it is not strong enough to withhold the product weight, the unit could fall and cause injury.
- ▶ The unit should be installed in accordance with the National Electrical regulations. Check if the voltage and the frequency of the main power supply are those required for the unit to be installed and check the connection. Avoid the use of an extension cord and do not share the power outlet with other appliances. Incomplete connection, defective insulation or exceeding the permissible current may cause electric shock or fire.
- ▶ Use the specified wires to connect the indoor and outdoor units securely and attach the wires firmly to the terminal block connecting sections so that the pressure is not applied to the sections. Inappropriate connection and fixing could cause fire.
- ▶ Attach the electrical cover to the indoor and outdoor unit securely without any gaps. If there are any gaps, there is potential risk of fire or electric shock due to dust or water.
- ▶ Make sure to use the part provided or specified parts for the installation work. The use of defective parts could cause an injury or leakage of water due to a fire, an electric shock, the unit falling, etc.
- ▶ Make sure that the refrigerant gas does not leak after completing the installation. If the refrigerant gas of the indoor unit leaks and comes into contact with the fan heater, space heater or stove, harmful gas will be generated.
- ▶ Ensure that the national safety code requirements have been followed for the main supply circuit. Ensure that a proper ground wire is in place. Do not connect the ground to a gas pipe, water pipe, lightning rod or telephone grounding. Defective grounding could cause electric shock.
- ▶ Do not install the unit in a place with direct sunlight, dangerous substances or where it is exposed to inflammable gas leakage to prevent explosion, fire or personal injury.
- ▶ Perform the installation securely referring to the installation manual. Incomplete installation could cause personal injury due to fire, electric shock and water leakage or from the unit falling.
- ▶ Before connecting the power plug and power receptacle check for dust, loose or blocked. Make sure that plug is fully inserted. Dusted power plug, blocked or loosened power receptacle may cause fire or electric shock. Exchange the power receptacle if it is loose.
- ▶ Check first the following situations before starting the operation during the installation.
 - The pipe must be properly connected and make sure there is no leakage.
 - Service valves must be open. If compressor is operated with the service valve closed, excessive pressure may damage parts of the compressor. If leakage occurs on any of the connection, air inflow may also cause excessive pressure that could lead to explosion.



**WARNING**• Hazards or unsafe practices that may result in **severe personal injury or death**.

- ▶ Stop the compressor before disconnecting the refrigerant pipe for pump-down operation. If you disconnect the refrigerant pipe while compressor is operating with service valve open, air inflow will cause excessive pressure in the refrigerant cycle that could lead to explosion and personal injury.
- ▶ Do not assemble the power cord on your own, use two cables together to extend the cable length or tangle the cable. Bad connection, isolation and over voltage may cause fire or electric shock.
- ▶ Make sure to turn off the main power when setting up the indoor unit electrical circuit or power cords. There is a risk of electric shock.
- ▶ Make sure that proper circuit breaker and safety switches are installed. Install a ground leakage breaker depending on the installation place (where it is humid). If not, it may cause electric shock.
- ▶ Do not install the unit by yourself (owners). Incorrect installation of the unit could cause injury due to fire, electric shock and water leakage or from the unit falling. Consult a dealer or a qualified installer.
- ▶ Use the unit on a single outlet circuit. Do not share the power outlet with other appliances. Obtain the consent by a qualified installer before connecting the unit to the power supply system.

**CAUTION**• Hazards or unsafe practices that may result in **minor personal injury or property damage**.

- ▶ Perform the drainage/piping work securely according to the installation manual. If not, water could drop from the unit and household goods could get wet and damaged.
- ▶ Fasten a flare nut with a torque wrench as specified in this installation manual. When fastened too tight, a flare nut may break after a long period of time and cause refrigerant leakage.
- ▶ Wear thick gloves during the installation process. If not, personal injury may occur due to the air conditioner parts.
- ▶ Be careful not to touch the outdoor unit inlet or aluminium pins. You may get personal injury.
- ▶ The air conditioner should be used only for the applications for which it has been designed: the indoor unit is not suitable to be installed in areas used for laundry.
- ▶ When installing the indoor unit, use a stable stool and watch your steps carefully.
- ▶ To prevent injury when accidentally touching the indoor unit fan, install the indoor unit at least 2.5m above the floor level.
- ▶ Our units must be installed in compliance with the spaces indicated in the installation manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units' components must be accessible and that can be disassembled in conditions of complete safety either for people or things.

For this reason, where it is not observed as indicated into the Installation Manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.
- ▶ Do not install the outdoor unit in a place where animals could live. If an animal get contact with the electric parts, damage or fire may occur. In addition ask the customer to maintain a clean installation place around it.
- ▶ Check the unit for damage that may have taken place during transportation and do not install or use damaged equipment.
- ▶ After completing the installation run the trial operation. If no error occurs, explain to the customer how to use and clean the air conditioner according to the user's manual. In addition give the installation manual and the user's manual to the customer.
- ▶ All of the manufacturing and packaging material used for your new appliance are compatible with the environment and can be recycled.
- ▶ Dispose of the packaging material in accordance with the local requirements.
- ▶ This product is an air conditioning system and contains a coolant that must be recovered and disposed of in an appropriate way by qualified personnel. At the end of the life cycle, take it to a proper recycling or disposal center or return it to the dealer so that it can be disposed correctly.



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Preparation for installation

When deciding on the location of the air conditioner with the owner, the following restrictions must be taken into account.

General

Do NOT install the air conditioner in a location where it will come into contact with the following elements:

- ◆ Combustible gases
- ◆ Saline air
- ◆ Machine oil
- ◆ Sulphide gas
- ◆ Special environmental conditions

If you must install the unit in such conditions, first consult your dealer.

Avoid installing the air conditioner:

- ◆ In areas where it is exposed to direct sunlight. Close to heat sources.
- ◆ In damp areas or locations where it could come into contact with water (for example rooms used for laundry)
- ◆ In areas where curtains and furniture could affect the supply and discharge of air.
- ◆ Without leaving the required minimum space around the unit (as shown in the drawing).
- ◆ In scarcely ventilated areas.
- ◆ On surfaces that are unable to support the weight of the unit without deforming, breaking or causing vibrations during the use of the air conditioner.
- ◆ In a position that does not enable the condensate drainage pipe to be correctly installed (at the end of the installation. It is always essential to check the efficiency of the drainage system.)

⚠ CAUTION

- ◆ **You have just purchased a Free Joint Multi air conditioner and it has been installed by your installation specialist.**
- ◆ **This device must be installed according to the national electrical rules.**
- ◆ **Max input power & current is measured according to IEC standard and input power & current is measured according to ISO standard.**

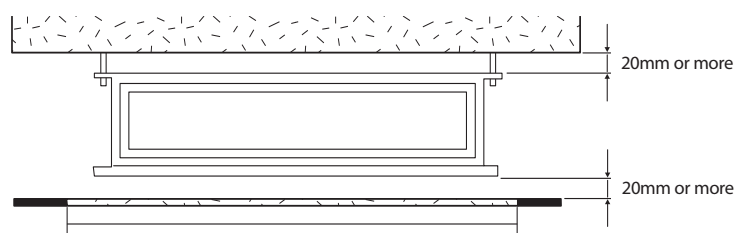
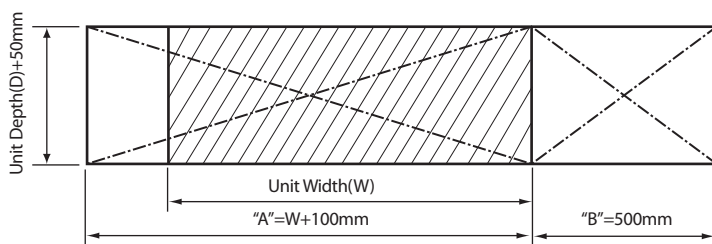
Deciding on where to install the Air Conditioner

Indoor unit

- ◆ There must be no obstacles near the air inlet and outlet.
- ◆ Install the indoor unit on a ceiling that can support its weight.
- ◆ Maintain sufficient clearance around the indoor unit.
- ◆ Make sure that the water dripping from the drain hose runs away correctly and safely.
- ◆ The indoor unit must be installed in this way, that they are out of public access. (Not touchable by the users)
- ◆ After connecting a chamber, insulate the connection part between the indoor unit and the chamber with t10 or thicker insulation. Otherwise, there can be air leak or dew from the connection part.

Space requirements for installation & service

- ◆ Construction Standard for Inspection Hole.
 - 1) In case, the ceiling is textile, Inspection hole dose not need.
 - 2) In case, the ceiling is plaster board, Inspection hole depends on Inside height of the ceiling.
 - a. Height is more than 1m : Only "B" [Inspection for PBA] is applied.
 - b. Height is less than 1m : Both "A" & "B" are applied.
 - c. "A" & "B" are inspection holes.



- You must have 20mm or more space between the ceiling and the bottom of indoor unit. Otherwise, the noise from the vibration of indoor unit may bother the user. When the ceiling is under construction, the hole for check-up must be made to take service, clean and repair the unit.
- It is possible to install the unit at an height of between 2.2~2.5m from the ground, if the unit has a duct with a well defined length (300mm or more), to avoid fan motor blower contact.

◆ MH050FXEA2◆

Indoor unit	Outdoor unit	Power supply Ø, V, Hz
◆◆026/035◆◆	MH050FXEA2◆	1,220-240, 50

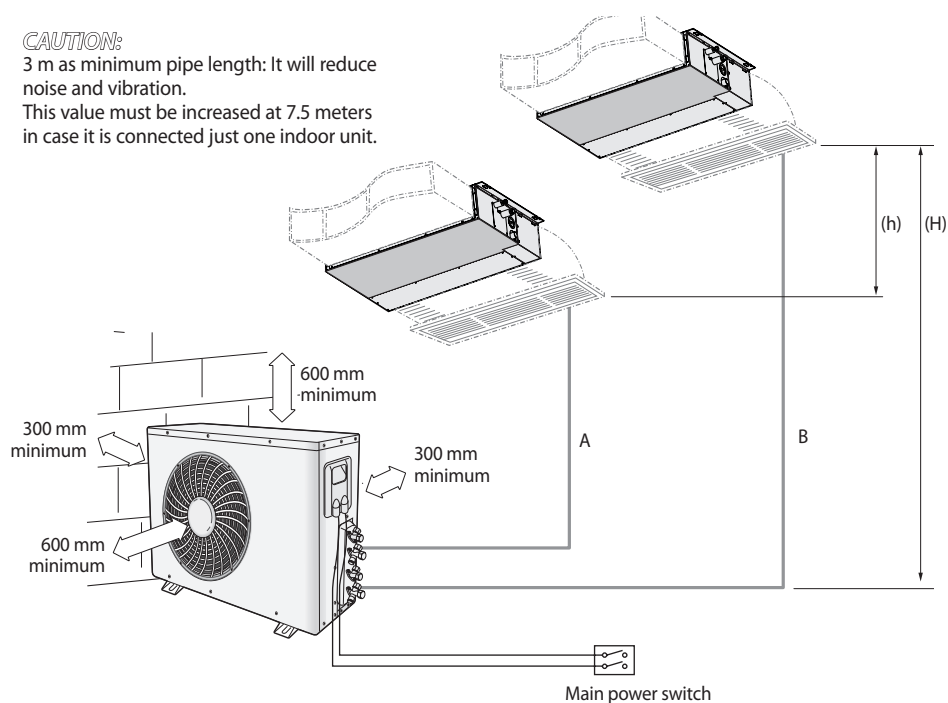
▷ Piping outside diameter

Unit	Outside diameter	
	Liquid	Gas
◆◆026/035◆◆	1/4"	3/8"

◆ MH050FXEA2◆ outdoor unit cannot be connected to the following indoor unit combination.
-MH052FMEA/MH052FUEA/MH052FEEA

CAUTION:

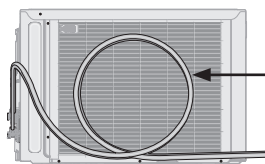
3 m as minimum pipe length: It will reduce noise and vibration.
This value must be increased at 7.5 meters
in case it is connected just one indoor unit.



▷ Piping length and the height

	1 Room max length	2 Room total max length	Max height between indoor unit & outdoor unit	Max height between indoor units
Dimension	20m	30 m	15m	7.5 m
Composition	A,B	A+B	(H)	(h)

System can work with one indoor unit connected, but it is recommended that the TOTAL number of indoor unit suggested by manufacturer are connected to obtain the maximum performance.



◆ The appearance of the unit may be different from the diagram depending on the model.

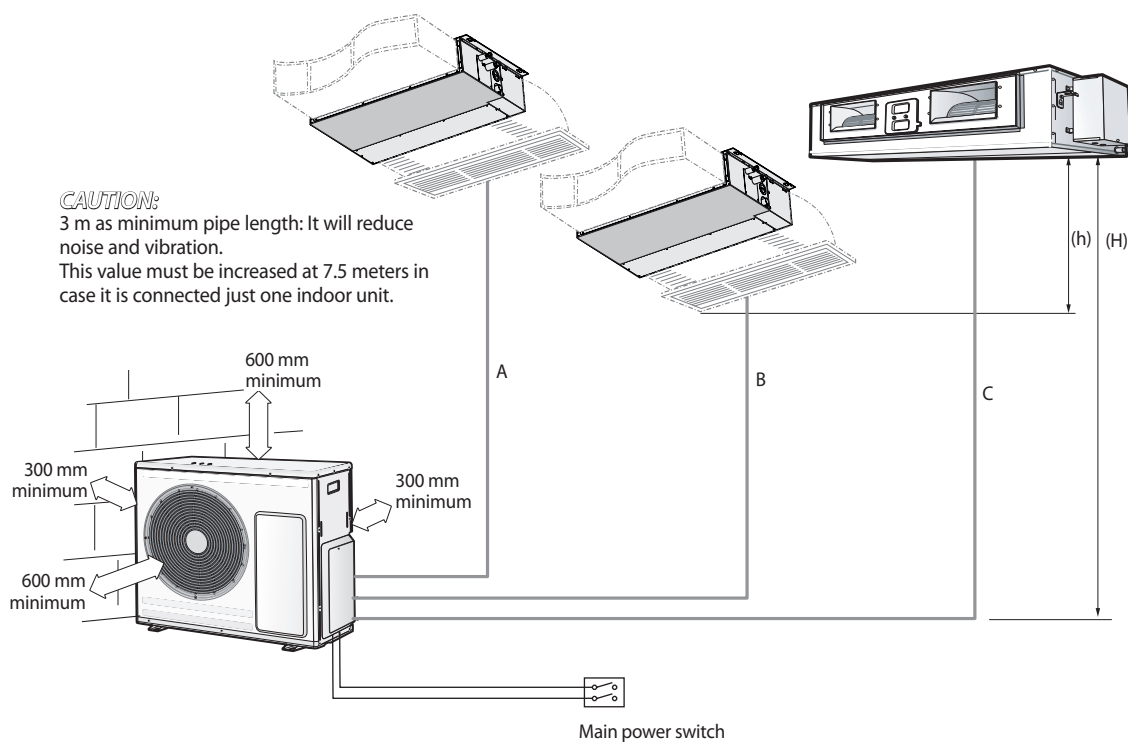
Deciding on where to install the Air Conditioner (Continue)

◆ MH060FXEA3B

▷ Piping outside diameter

Indoor unit	Outdoor unit	Power supply Ø, V, Hz
026/035/052	MH060FXEA3B	1,220-240, 50

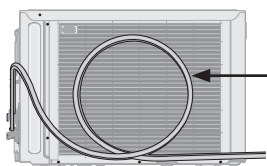
Unit	Outside diameter	
	Liquid	Gas
026/035	1/4"	3/8"
052		1/2"



▷ Piping length and the height

	1 Room max length	3 Room total max length	Max height between indoor unit & outdoor unit	Max height between indoor units
Dimension	20m	45 m	15m	7.5 m
Composition	A,B,C	A+B+C	(H)	(h)

System can work with one indoor unit connected, but it is recommended that the TOTAL number of indoor unit suggested by manufacturer are connected to obtain the maximum performance.



Make at least one round:
It will reduce noise and vibration

* The appearance of the unit may be different from the diagram depending on the model.

◆ MH070FXEA4B / MH080FXEA4B

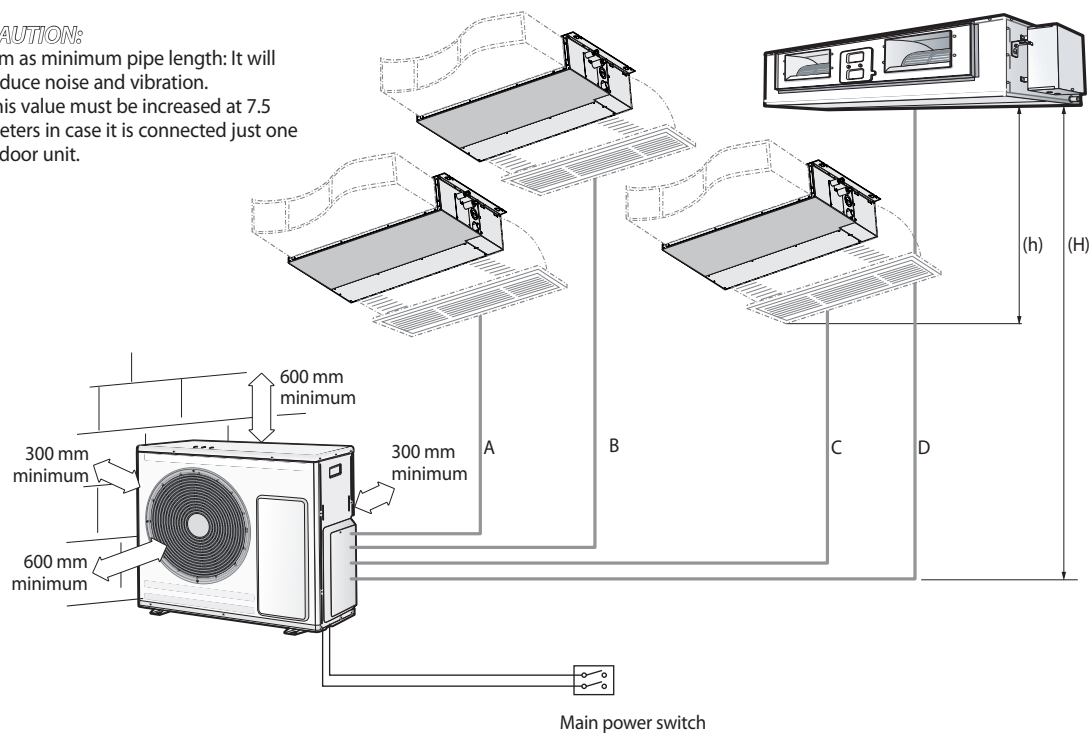
Indoor unit	Outdoor unit	Power supply Ø, V, Hz
026/035/052	MH070FXEA4B MH080FXEA4B	1,220-240, 50

► Piping outside diameter

Unit	Outside diameter	
	Liquid	Gas
026/035	1/4"	3/8"
052	1/4"	1/2"

CAUTION:

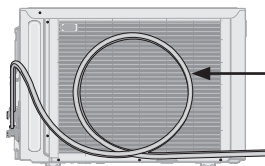
3 m as minimum pipe length: It will reduce noise and vibration.
This value must be increased at 7.5 meters in case it is connected just one indoor unit.



► Piping length and the height

	1 Room max length	4 Room total max length	Max height between indoor unit & outdoor unit	Max height between indoor units
Dimension	25m	70 m	15m	7.5 m
Composition	A,B,C,D	A+B+C+D	(H)	(h)

System can work with one indoor unit connected, but it is recommended that the TOTAL number of indoor unit suggested by manufacturer are connected to obtain the maximum performance.




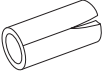
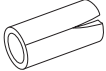

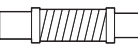



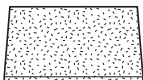
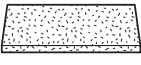


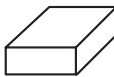
Make at least one round:
It will reduce noise and vibration

* The appearance of the unit may be different from the diagram depending on the model.










Air Conditioner and Accessories

Accessories in the Indoor Unit Case

- ◆ The following accessories are supplied with the indoor unit.

Pattern Sheet 	Insulation A 	Insulation B 	Insulation C 	Flexible hose 	User's manual 	Installation manual 
Drain pipe holder 	Insulation D 	Insulation cover band E 	Putty 	Cable-Tie 	Wired remote controller box 	

Wired remote control accessories

Wired remote control 	Cable-tie 	Cable clamp 	M4x16 tapped screw 		
Indoor unit power drawing cable 	Communication cable of the wired remote control 	Wire joint 	User's manual 	Installation manual 	

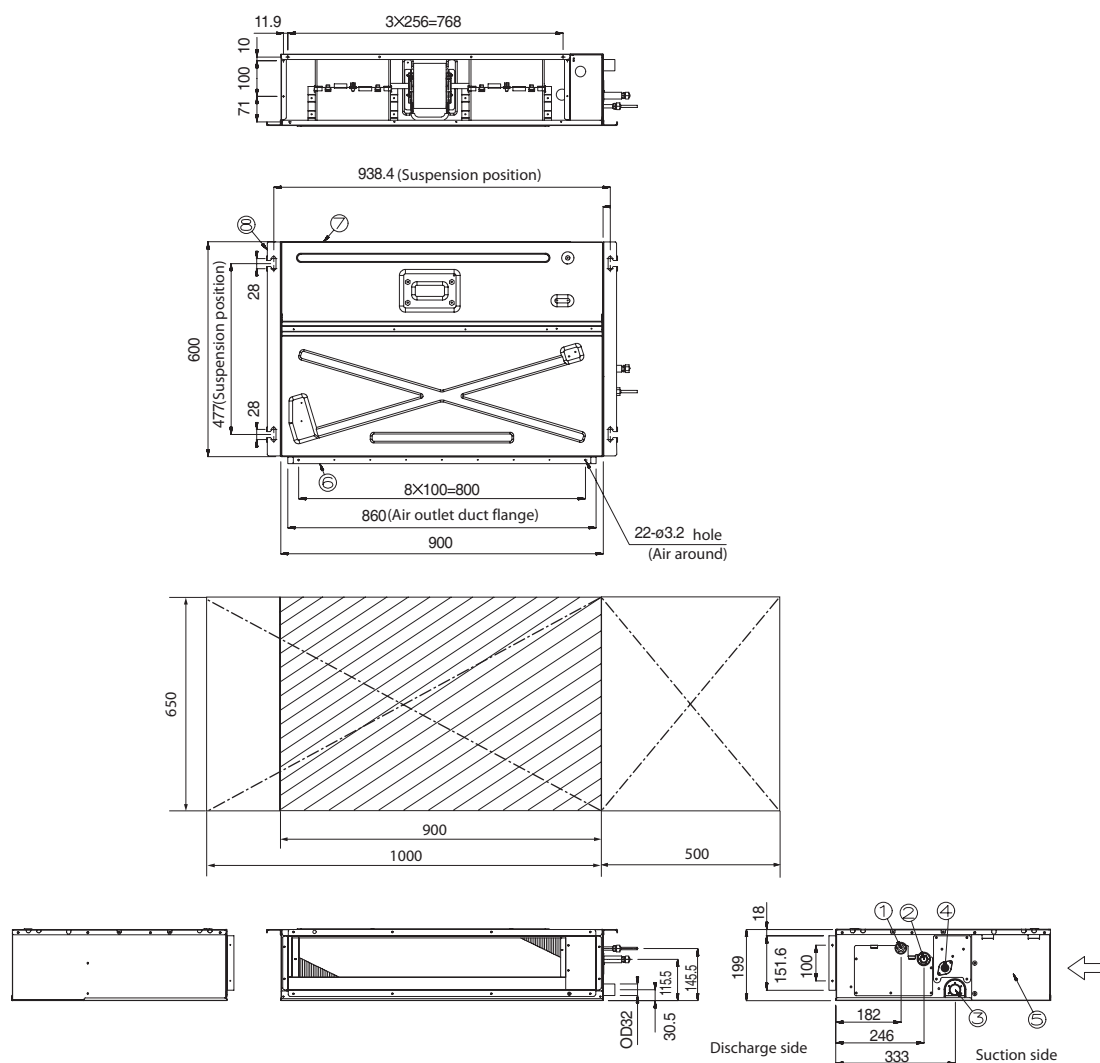


Deciding on where to install the indoor unit

Drawing of the indoor unit

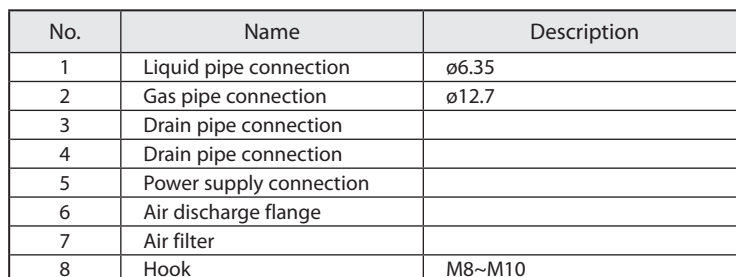
*MH026FEEA/MH035FEEA/NJ026LHXEA/NJ035LHXEA

Unit : mm



No.	Name	Description
1	Liquid pipe connection	ϕ 6.35
2	Gas pipe connection	ϕ 9.52
3	Hose connection	
4	Hose connection	
5	Power supply/Communicaion connection	
6	Power supply connection	
7	Air discharge grille flange	
8	Air inlet grille flange	M8~M10

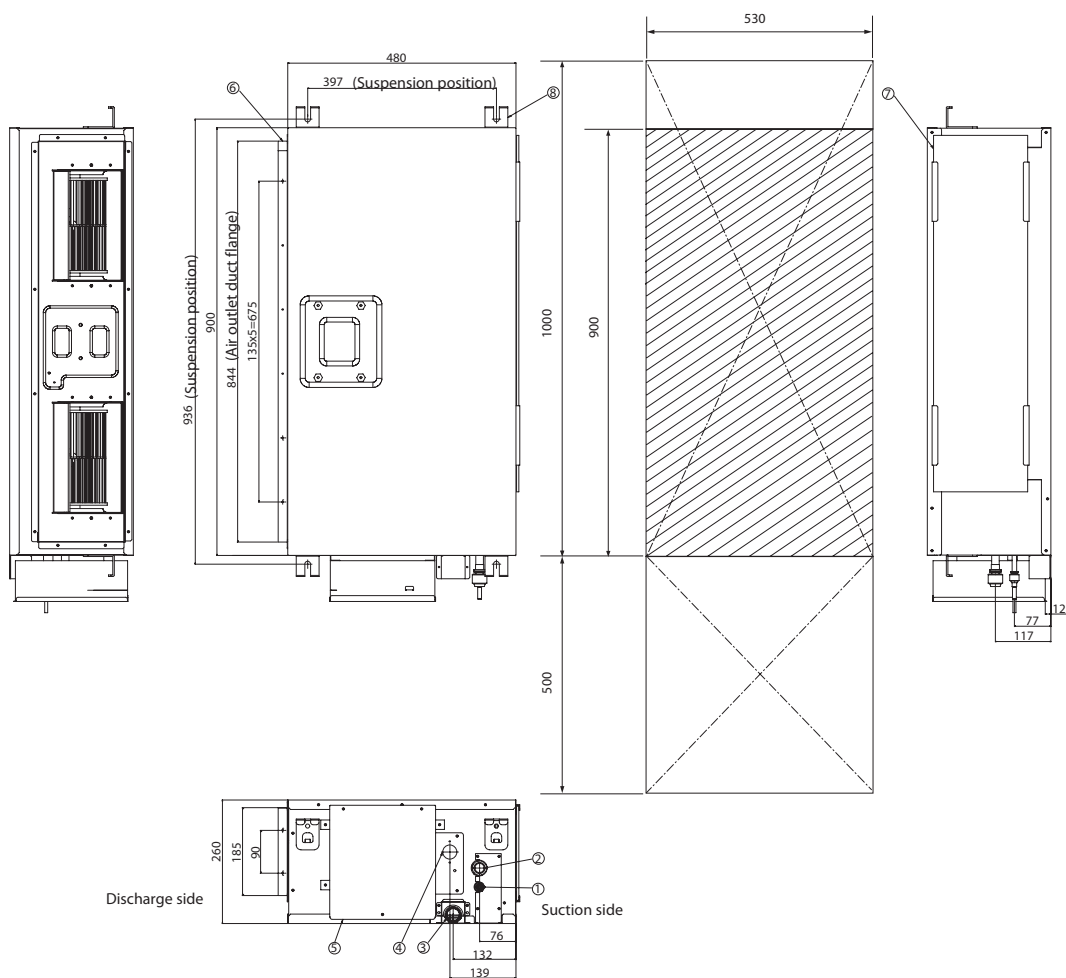
Unit : mm





*MH052FUEA

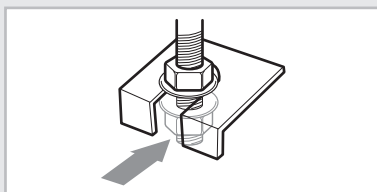
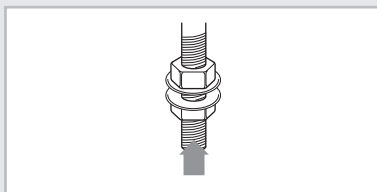
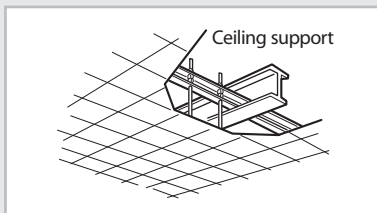
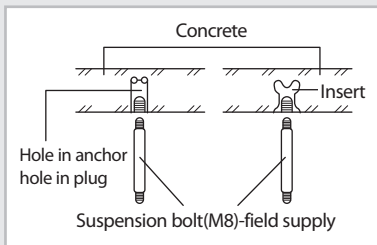
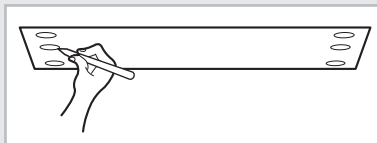
Unit : mm



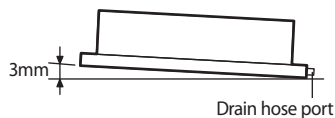
No.	Name	Description
1	Liquid pipe connection	ø6.35
2	Gas pipe connection	ø12.7
3	Drain pipe connection	OD32 ID26(without drain pump)
4	Drain pipe connection	Using drain pump (Optional)
5	Power supply connection	
6	Air discharge flange	
7	Air filter	
8	Hook	M8~M10



Indoor unit installation



When the drain hose is installed to the right.



It is recommended to install the refnet joint before installing the indoor unit.

- 1 Place the pattern sheet on the ceiling at the spot where you want to install the indoor unit.

Note Since the diagram is made of paper, it may shrink or stretch slightly due to temperature or humidity. For this reason, before drilling the holes maintain the correct dimensions between the markings.

- 2 Insert bolt anchors. Use existing ceiling supports or construct a suitable support as shown in figure.

- 3 Install the suspension bolts depending on the ceiling type.

CAUTION

- ◆ Ensure that the ceiling is strong enough to support the weight of the indoor unit. Before hanging the unit, test the strength of each attached suspension bolt.
- ◆ If the length of suspension bolt is more than 1.5m, it is required to prevent vibration.
- ◆ If this is not possible, create an opening on the false ceiling in order to be able to use it to perform the required operations on the indoor unit.
- ◆ Si no es posible, cree una operación en el techo falso para poder usarlo y efectuar las operaciones requeridas en la unidad interna.

- 4 Screw eight nuts to the suspension bolts making space for hanging the indoor unit.

CAUTION You must install all the suspension rods.

- 5 Hang the indoor unit to the suspension bolts between two nuts.

Note Piping must be laid and connected inside the ceiling when suspending the unit. If the ceiling is already constructed, lay the piping into position for connection to the unit before placing the unit inside the ceiling.

- 6 Screw the nuts to suspend the unit.

- 7 Adjust level of the unit by using measurement plate for all 4 sides.

Note For proper drainage of condensate, give a 3mm slant to the left or right side of the unit which will be connected with the drain hose, as shown in the figure. Make a tilt when you wish to install the drain pump, too.



Purging the unit

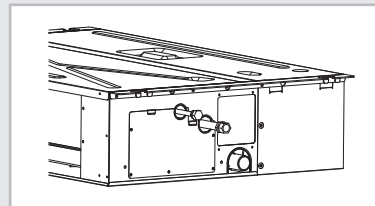
From factory the unit is supplied and set with a pre-charge of nitrogen gas (inert gas). Therefore, all inert gas must be purged before connecting the assembly piping.

Unscrew the pinch pipe at the end of each refrigerant pipe.

Result: All inert gas escapes from the indoor unit.

Note To prevent dirt or foreign objects from getting into the pipes during installation, do NOT remove the pinch pipe completely until you are ready to connect the piping.

- CAUTION**
- ◆ Connect the indoor and outdoor units using pipes with flared connections(not supplied). For the lines, use insulated, unwelded, degreased and deoxidized copper pipe,(Cu DHP type to ISO 1337), suitable for operating pressures of at least 4200kPa and for a burst pressure of at least 20700kPa. Copper pipe for hydro-sanitary applications is completely unsuitable.
 - ◆ For sizing and limits (height difference, line length, max. bends, refrigerant charge, etc.) see the outdoor unit installation manual.
 - ◆ All refrigerant connection must be accessible, in order to permit either unit maintenance or removing it completely.



※ The designs and shape are subject to change according to the model.

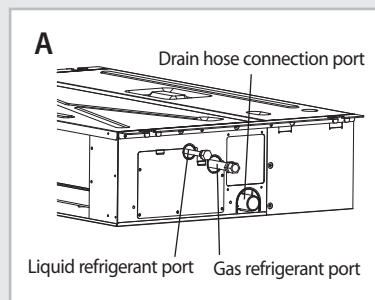
Connecting the refrigerant pipe

There are two refrigerant pipes of different diameters:

- ◆ A smaller one for the liquid refrigerant
- ◆ A larger one for the gas refrigerant
- ◆ The inside of copper tube must be clean & has no dust.

The connection procedure for the refrigerant pipes varies according to the exit position of the pipes from the indoor unit, as seen when facing the indoor in the "A" side.

- ◆ Liquid refrigerant port
- ◆ Gas refrigerant port
- ◆ Drain hose connection port

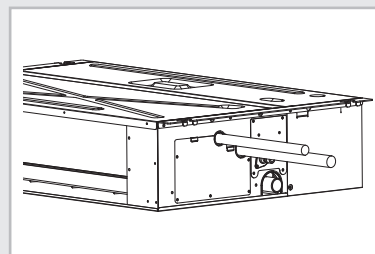


- 1 Remove the pinch pipe on the pipes and connect the assembly pipes to each pipe, tightening the nuts, first manually and then with a torque wrench, a spanner applying the following torque.

Outer Diameter	Thickness	Torque (N·m)
6.35 mm (1/4")	0.8mm	18
9.52 mm (3/8")	0.8mm	42
12.70 mm (1/2")	0.8mm	55

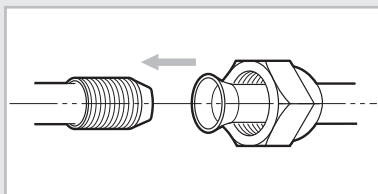
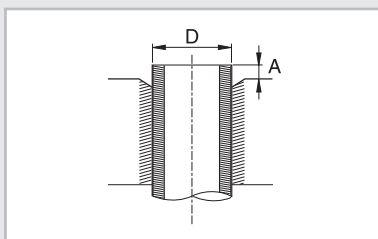
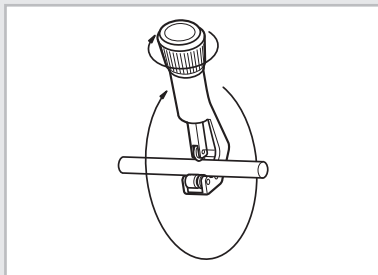
Note If the pipes must be shortened refer to page 16.

- 2 Must use insulator which is thick enough to cover the refrigerant tube to protect the condensate water on the outside of pipe falling onto the floor and the efficiency of the unit will be better.
- 3 Cut off any excess foam insulation.
- 4 Be sure that there must be no crack or wave on the bended area.
- 5 It would be necessary to double the insulation thickness(10mm or more) to prevent condensation even on the insulator when if the installed area is warm and humid.



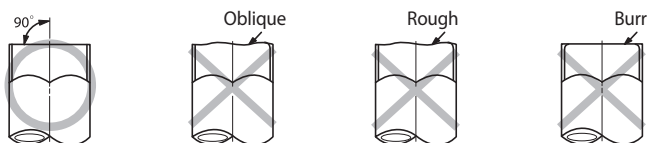
※ The designs and shape are subject to change according to the model.

Cutting/Flaring the pipes



- 1 Make sure that you have the required tools available.
(pipe cutter, reamer, flaring tool and pipe holder).

- 2 If you wish to shorten the pipes, cut it with a pipe cutter, taking care to ensure that the cut edge remains at a 90° angle with the side of the pipe. Refer to the illustrations below for examples of edges cut correctly and incorrectly.

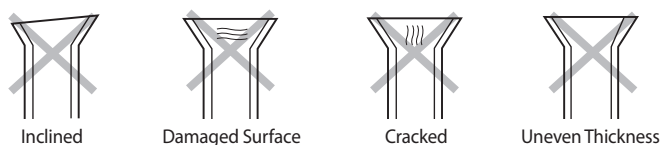


- 3 To prevent any gas from leaking out, remove all burrs at the cut edge of the pipe, using a reamer.

- 4 Slide a flare nut on to the pipe and modify the flare.

Outer diameter (D)	Thickness	Depth (A)
6.35 mm (1/4")	0.8mm	1.3mm
9.52 mm (3/8")	0.8mm	1.8mm
12.70 mm (1/2")	0.8mm	2.0mm

- 5 Check that the flaring is correct, referring to the illustrations below for examples of incorrect flaring.



- 6 Align the pipes and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.

Valve	Flare nut		Valve cap		Pressure port cap		Valve needle		Pressure port	
	Wrench (mm)	N·m	Wrench (mm)	N·m	Wrench (mm)	N·m	Wrench (mm)	N·m	Wrench (mm)	N·m
1/4"	17	18	23	20	18	16~18	Allen (hex.) 5	9	-	0.34
3/8"	22	42	23	20	18	16~18	Allen (hex.) 5	9	-	0.34
1/2"	26	55	29	40	18	16~18	Allen (hex.) 5	13	-	0.34
5/8"	29	65	29	40	18	16~18	Allen (hex.) 5	13	-	0.34
3/4"	36	100	38	40	18	16~18	Allen (hex.) 5	13	-	0.34

⚠ CAUTION

In case of welding the pipe, you must weld with nitrogen gas blowing.



Performing leak test & insulation

Leak test

◆ LEAK TEST WITH NITROGEN (before opening valves)

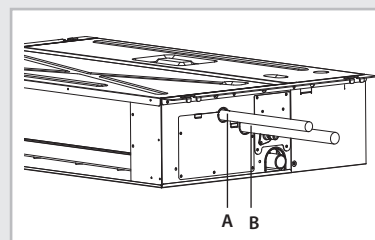
In order to detect basic refrigerant leaks, before recreating the vacuum and recirculating the R-410A, it's responsible of installer to pressurize the whole system with nitrogen (using a cylinder with pressure reducer) at a pressure above 30 bar (gauge).

◆ LEAK TEST WITH R-410A (after opening valves)

Before opening valves, discharge all the nitrogen into the system and create vacuum. After opening valves check leaks using a leak detector for refrigerant R-410A.

⚠ CAUTION

Discharge all the nitrogen to create a vacuum and charge the system.



Insulation

Once you have checked that there are no leaks in the system, you can insulate the piping and hose.

- 1 To avoid condensation problems, place **T13.0 or thicker Acrylonitrile Butadien Rubber** separately around each refrigerant pipe.

Note Always make the seam of pipes face upwards.

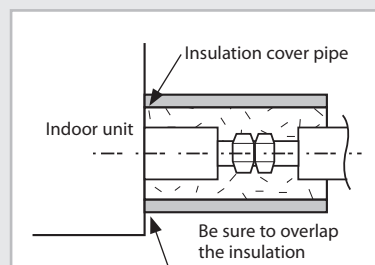
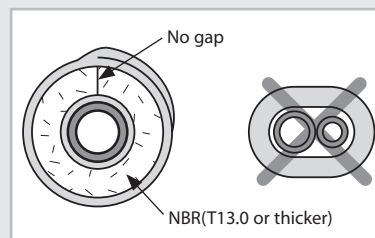
- 2 Wind insulating tape around the pipes and drain hose avoiding to compress the insulation too much.

- 3 Finish wrapping insulating tape around the rest of the pipes leading to the outdoor unit.

- 4 The pipes and electrical cables connecting the indoor unit with the outdoor unit must be fixed to the wall with suitable ducts.

⚠ CAUTION

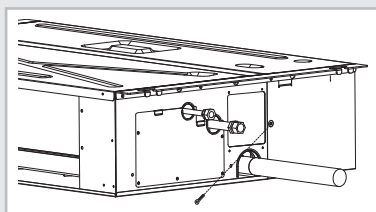
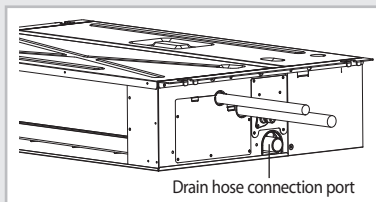
All refrigerant connection must be accessible, in order to permit either unit maintenance or removing it completely.



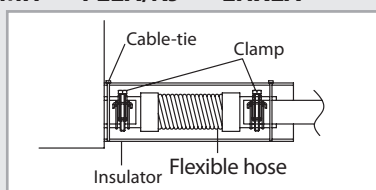
⚠ CAUTION

Must fit tightly against body without any gap.

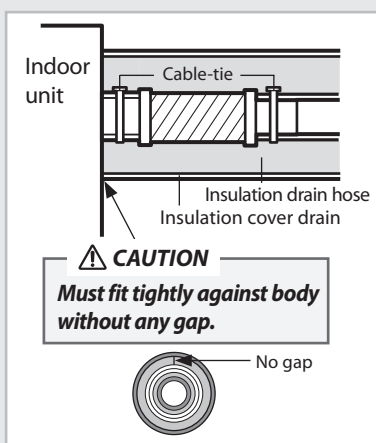
Drain hose installation



MH***FEEA/NJ***LHXEA



MH052FUEA



Care must be taken when installing the drain hose for the indoor unit to ensure that any condensate water is correctly drained outside. The drain hose can be installed to the right of the base pan.

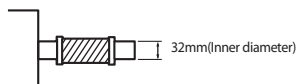
- 1 Unscrew the 4 tapped screws to remove the cover of the drain hose connection port.

- 2 Insert the flexible hose to the drain hose port.

Note Fix the flexible hose to the indoor unit with the supplied cable clamp securely.
(Use the screwdriver to fix the flexible hose securely.)

- 3 Install the drain hose so that its length can be as short as possible. Internal diameter of the drain hose should be the same or slightly bigger than the external diameter of the drain hose port.

◆ Inner diameter of the drain hose



- Note**
- ◆ Give a slightly slant to the drain hose for proper drainage of condensate.
 - ◆ Fix the flexible hose to the PVC with the supplied cable tie securely.

- 4 Wrap the drain hose with the insulation drain as shown in figure and secure it.



Testing the drainage

Prepare a little water about 5 liter.

- 1 Open the cover of water supply intake by turning and pulling the cover.
(MH***FEEA/NJ***LHXEA)

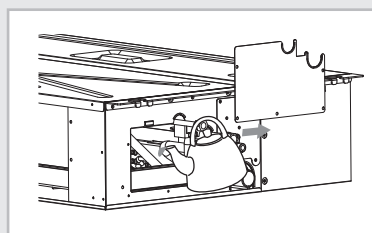
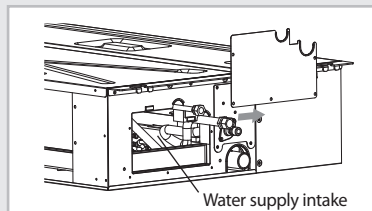
- 2 Pour water into the the indoor unit as shown in figure.

Note ♦ If you do not pour water inside the water supply intake, wateray spill from the indoor unit.

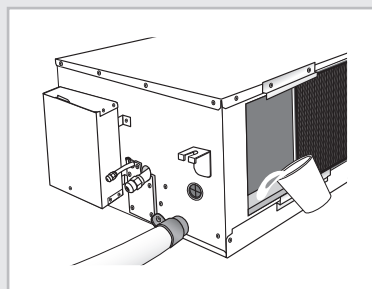
- 3 Confirm that the water flows out through the drain hose.

- 4 Reassemble the cover of water supply intake.(MH***FEEA/NJ***LHXEA)

*MH***FEEA/NJ***LHXEA



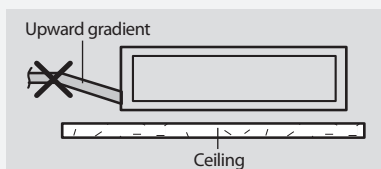
*MH***FUEA



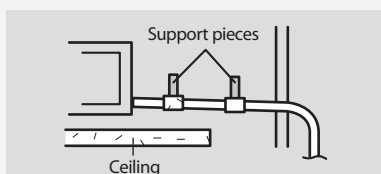
CAUTION

When not installing the drain pump

Do not give the hose upward gradient after the connection port. This will cause water to flow backwards when the unit is stopped, resulting in water leaks.

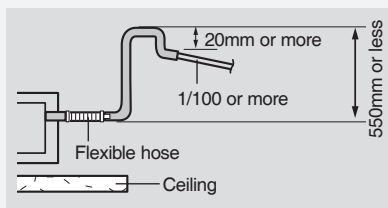


Do not apply force to the piping on the unit side when connecting the drain hose. The hose should not be allowed to hang loose from its connection to the unit. Fasten the hose to a wall, frame or other support as close to the unit as possible.



When installing the drain pump

When installing a flexible hose, the difference of pivot of a drain hose port and a drain hose must be within 20mm. If the difference of each pivot is more than 20mm, or a flexible hose is bent steeply, a flexible hose may leak.



Connecting the Connection Cord

The indoor unit is powered from the outdoor unit via the connection cord.

- 1 Remove the screw on the electrical component box and remove the cover plate.
- 2 Route the connection cord through the side of the indoor unit and connect the cable to terminals; refer to the figure below.
- 3 Route the other end of the cable to the outdoor unit through the ceiling & the hole on the wall.
- 4 Reassemble the electrical component box cover, carefully tightening the screw.

Between Indoor and Outdoor Connection Cord Specifications

Power Supply (Single Phase)			Earth Cable	Communication Cable	Home server
Power Supply	Max/Min(V)	Connection Wire			
220-240V~ /50Hz	±10%	1.0mm ² or more (H07RN-F, 3 wires)	Ø 1.6mm (2 wires)	0.75~ 1.25mm ² (H07RN-F, 2 wires)	0.75~ 1.25mm ² (2 wires)

⚠ CAUTION

Keep the power cable and the connection cord in a steel pipe to protect them against liquids, outside impacts and so on.

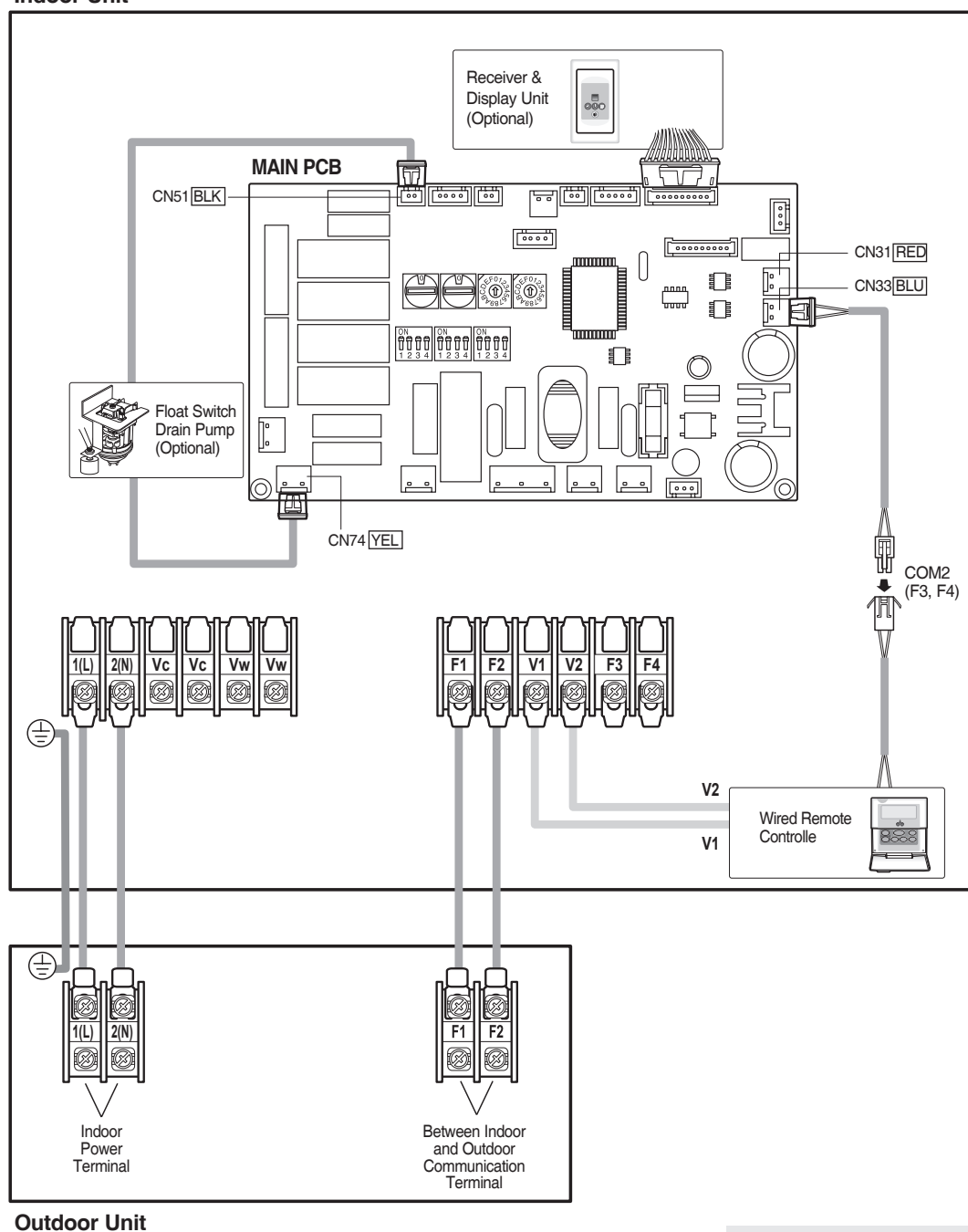


Wiring and Communication Cable Connection

Connect the power cable, which is connected with the outdoor unit and supplied by another source, making sure that the power cable terminal should not be changed.

The F3 and F4 communication cable may be cross-connected, however, it is recommended that they are connected to the corresponding F3 and F4 terminal.

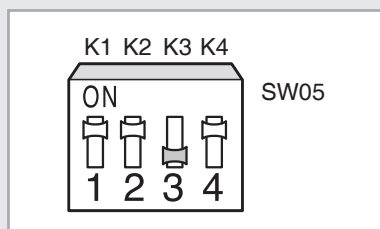
Indoor Unit



Increasing Fan Speed

If external static pressure is too great (due to long extension of ducts, for example), the air flow volume may drop too low at each air outlet. This problem can be solved by increasing the fan speed using the following procedure.

- 1 Remove the screw on the electrical component box and remove the cover plate.



- 2 Adjust the DIP switch (SW05) on the main PCB to the "OFF" position.

Switch No.	Switch Position	Function
K3	ON	Normal speed
	OFF	High speed

- 3 Re-install the cover plate and join the removed screw.

External Static Pressure

External Static Pressure (mmAq)	1.0	2.0*	3.0	4.0
MH026FEEA/NJ026LHXEA	015201-1400FB	015201-14020C	015201-140360	015201-1403A2
MH035FEEA/NJ035LHXEA	015201-16025D	015201-16026E	015201-1603C4	015203-160108
MH052FEEA	011223-194108	011223-194119	011223-1941AC	011223-19431D

External Static Pressure (mmAq)	0.0	2.0	4.0*	6.0
MH052FUEA	012221-194247	012221-194360	012221-1943A2	012223-194105

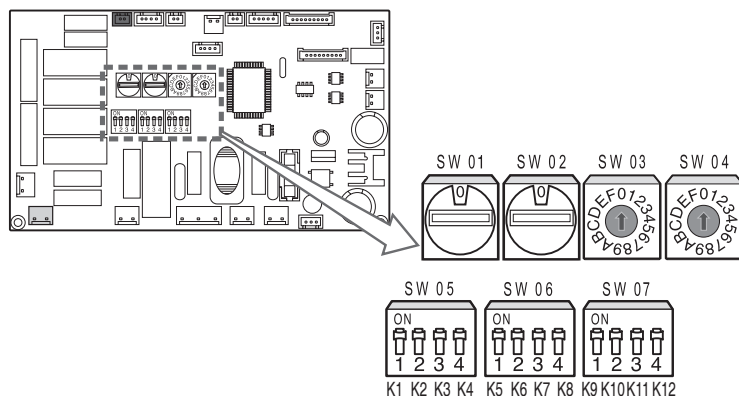
* Mark "*" is the basic model of this product.

Refer to the table above depending on the installation environment.



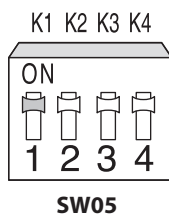
Assigning Address to Indoor Unit

- 1 Before installing the indoor unit, assign an address to the indoor unit according to the air conditioning system plan.
- 2 The address of the indoor unit is assigned by adjusting MAIN(SW02) switch.



- 3 The MAIN address is for communication between the indoor unit and the outdoor unit. Therefore, you must set it to operate the air conditioner properly.
- 4 It is required to set the RMC address if you install the wired remote controller and/or the centralized controller.
- 5 If you install optional accessories such as the wired remote controller, centralized controller, etc. see an appropriate installation manual.
- 6 If an optional accessory is not installed, you do not have to set the RMC address. However, adjust K1 and K2 switches of the SW05 DIP switch to "ON" position in this case.
- 7 Set the MAIN address by adjusting the rotary switch(SW02) from 0 to 9. Each indoor unit connected to the same outdoor unit must have different address.

Additional Functions



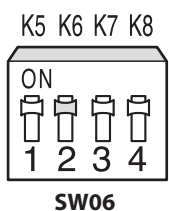
SW05

No.		Function	ON	OFF
SW05	K1	External room sensor	Not use	Use
	K2	Centralized controller	Not use	Use
	K3	Compensate RPM	Standard	Up
	K4	Drain Pump	Not use	Use

※ K1 OFF

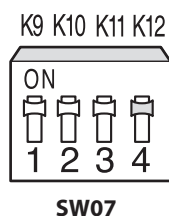
Heating mode : Setting temperature compensation value = 0°C

Thermo OFF → Fan OFF



SW06

No.		Function	ON	OFF
SW06	K5	Indoor Temperature Compensation for Heating Mode	+ 2°C	+ 5°C
	K6	Filter Time	1,000 hours	2,000 hours
	K7	Hot Water Coil	Not Use	Use
	K8	-	-	-



SW07


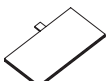

No.		Function	ON	OFF
SW07	K9	-	-	-
	K10	-	-	-
	K11	External control	Not Use	Use
	K12	External Control Output	Thermal ON	Operation ON



Filter Replacement (Optional)

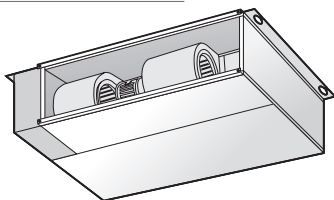
There are 2 kinds of air inlet as follows; they should be installed according to the following instruction.

Accessories

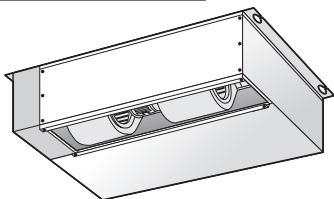
Filter	Cap filter	Bracket filter
2	1	2
		

Appearance

When air enters back side

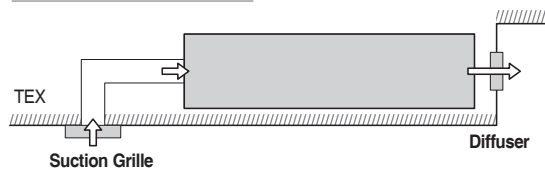


When air enters bottom side

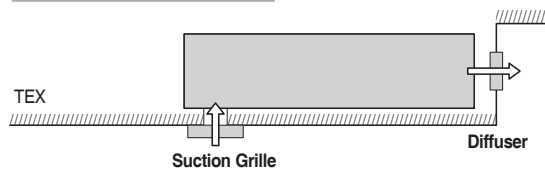


Installation Diagram

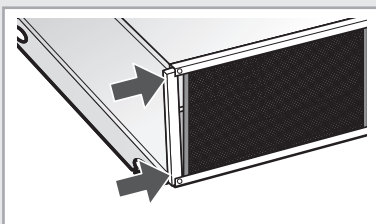
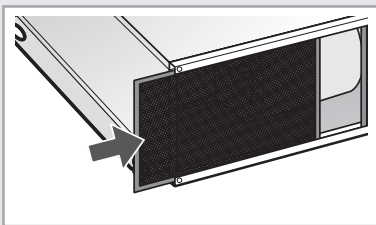
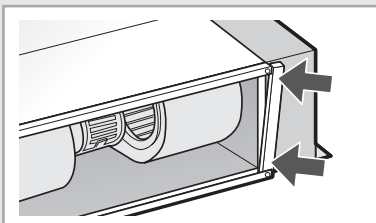
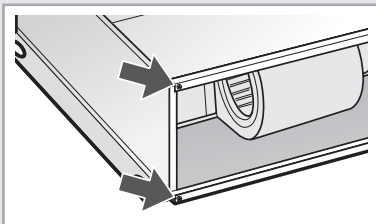
When air enters back side



When air enters bottom side



Filter Replacement (Optional) - continued



Installation Method

The shape and installation method are subject to change according to the models.

- 1 **When air enters back side**
Fix the indoor unit support to the top of the air inlet with screws.

When air enters bottom side
Fix the cover to the back of the product with screws.

- 2 Put pads on the support.

- 3 Put the indoor unit on the support.

- 4 Insert another pad between the indoor unit and the support.



Drain pump Installation (Optional)

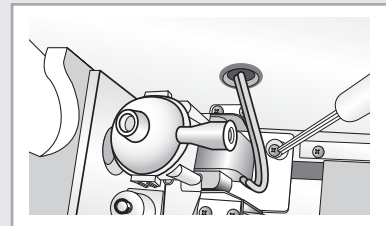
Accessories

Drain pump & Float switch	Flexible hose pump	Flexible hose	Drain cap
1	1	1	1

Clamp	Insulation	Cable-tie	Screw
1	1	4	3

- 1 Separate the bracket of the indoor unit and fix it with the drain pump.

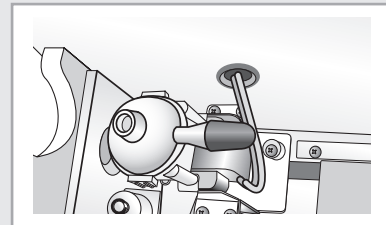
Note Fix it with 3 screws.



- 2 Connect the drain pump and the flexible hose pump.

Note

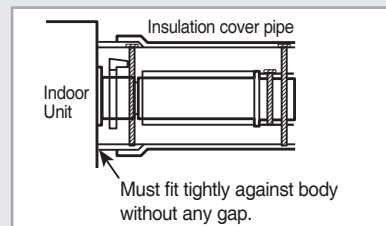
- ◆ Insert the flexible hose pump into a hole of the indoor unit.
- ◆ Connect the flexible hose to the connection of the drain pump with a clamp.
- ◆ Change a clamp under the drain pump.



- 3 Connect the flexible hose to the flexible hose pump.

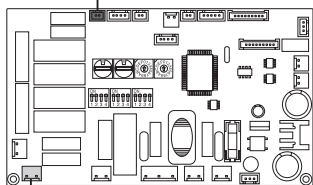
Note

- ◆ Check a rubber ring is installed to the drain pump.
- ◆ Stop the drain hole of the drain cushion with a drain cap.
- ◆ Insulate the flexible hose.



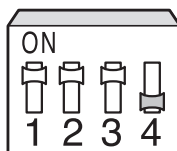
Drain pump Installation (Optional) - continued

Power supply unit (Black)



Drain pump (Yellow)

K1 K2 K3 K4



SW05

- 4 Connect the float switch of the drain pump(Yellow) and power supply unit(Black) to the PCB of the indoor unit.

Note

Use a cable tie for managing the drain pump.

- 5 Adjust K4 DIP switch(SW05) to the "OFF" position.

Switch No.	Switch Position	Using Drain Pump
K4	ON	X
	OFF	O

Note

Wrap the drain tube outlet on the right and left side of the indoor unit with an insulating materials.

- 6 Check water leakage of the drain hose port and the drain pipe after completing installation.

⚠ CAUTION

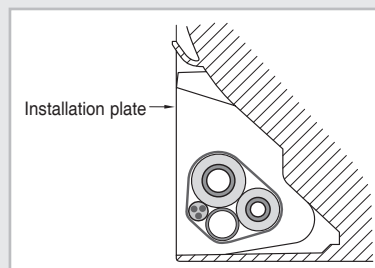
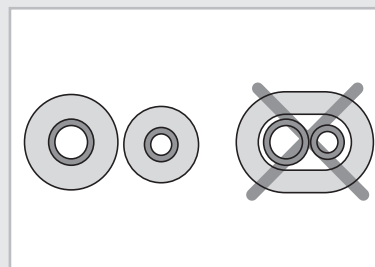
- ◆ **The drain pump must be installed by an installation specialist.**
- ◆ **Before installing the optional kits, ensure that you have turned off the main power.**
- ◆ **You should use the original drain pump made in Samsung. If you assemble the drain pump, you are responsible for every claim caused from the drain pump you assembled.**
- ◆ **After completing the drain pump, fix the connection port of the drain hose with insulation.**



Placing the Indoor Unit in Position

Once you have checked that there are no leaks in the system, you can insulate the piping, hose and cables and place the indoor unit on the installation plate.

- 1** To avoid condensation problems, place heat-resistant polyethylene foam separately around each refrigerant pipe in the lower part of the indoor unit.
- 2** Wind insulating tape around the pipes, assembly cable and drain hose.
- 3** Place the resulting bundle carefully in the lower part of the indoor unit, making sure that it does not jut out from the rear of the indoor unit.
- 4** Hook the indoor unit on to the installation plate and move the unit to the right and left until you are sure that it is securely in place.
- 5** Finish wrapping vinyl tape around the rest of the piping leading to the outdoor unit.
- 6** Using clamps (optionally supplied), attach the piping to the wall wherever possible.




















Troubleshooting

Detection of errors

- ◆ If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- ◆ If you re-operate the air conditioner, it operates normally at first, then detect an error again.

LED Display on the receiver & display unit

























LED Display

<u>Abnormal conditions</u>	Indicators					Operating
	Concealed Type					
						
	Standard Type					
						
Power reset		X	X	X	X	
Error of temperature sensor in indoor unit (OPEN/SHORT)	X	X		X	X	Displayed on appropriate indoor unit which is operating
Error of heat exchanger sensor in indoor unit Error of heat exchanger OUT sensor in indoor unit Error of outlet temperature sensor in indoor unit (OPEN/SHORT): For heat pump models only		X		X	X	Displayed on appropriate indoor unit which is operating
Error of mixed operation	X		X		X	
Error of outdoor temperature sensor Error of COND sensor Error of DISCHARGE sensor		X	X		X	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
1. No communication for 2 minutes between indoor unit and outdoor unit (communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minute error 4. When sending the communication error from outdoor unit the mismatching of the communication numbers and installed numbers after completion of tracking. (communication error for more than 2 minutes)	X	X			X	1. Error of indoor unit: Displayed on the indoor unit regardless of operation 2. Error of outdoor unit: Displayed on the indoor unit which is operating

● On ● Flickering X Off

- ◆ If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- ◆ If you re-operate the air conditioner, it operates normally at first, then detect an error again.

LED Display

<u>Abnormal conditions</u>	Indicators					Operating
	Concealed Type					
						
	Green	Red				
	Standard Type					
						
Self-diagnostic error (including the indoor unit not detected) 1. Error of electronic expansion valve close 2. Error of electronic expansion valve open 3. Breakaway of EVA OUT sensor 4. Breakaway of EVA IN sensor	X	X				Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
5. Breakaway of COND MID sensor 6. 2nd detection of refrigerant completely leak 7. 2nd detection of high temperature COND 8. 2nd detection of high temperature DISCHARGE 9. COMP DOWN due to 2nd detection of low pressure switch 10. Error of reverse phase 11. Compressor down due to 6th detection of freezing 12. Self-diagnosis of condensation sensor (G8, G9) 13. Compressor down due to condensation ratio control	X	X				Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
Error of float switch	X	X	X			
Error of setting option switches for optional accessories	X	X		X		
EEPROM error		X			X	
EEPROM option error						

● On ● Flickering X Off

- ◆ If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- ◆ If you re-operate the air conditioner, it operates normally at first, then detect an error again.



"EEE Yönetmeliğine Uygundur"
"This EEE is compliant with RoHS"



SAMSUNG

INSTALLATION MANUAL

MH***FEEA Series

MH***FUEA Series

NJ***LHxEA Series

ENGLISH

ESPAÑOL

FRANÇAIS

ITALIANO

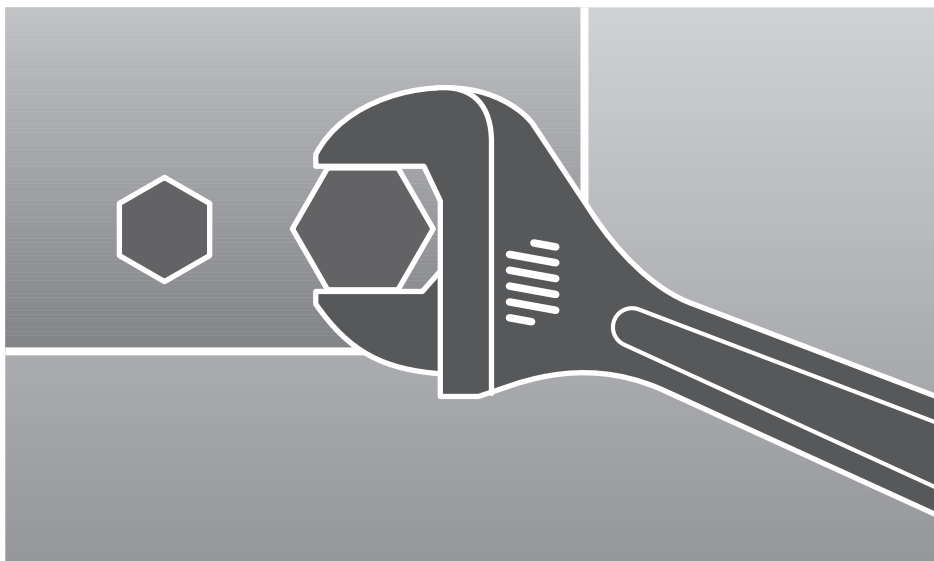
PORTUGUÊS

DEUTSCH

ΕΛΛΗΝΙΚΑ

Free Joint Multi Air Conditioner (Cooling and Heating)

INVERTER



(E)(S)(F)(I)(P)(D)(G) DB98-31792A(2)

